

What is Claimed is:

1. A composite pickup roller equipped on a pick mechanism, said pick mechanism being located on one side of a paper tray, comprising a plurality of gears to drive the pickup roller in contact with the top sheet of paper held in the paper tray, and rotating
5 in a direction of paper feeding to carry the paper towards the feed roller;

wherein the pickup roller has a roller surface which includes a high friction surface and a low friction surface, the high friction surface driving the paper through a friction force, the low friction surface permitting the paper to slide through, and the high friction surface having a length which is determined by the distance between an
10 initial position of the paper and the feed roller.
2. The pickup roller of claim 1, wherein the high friction surface is made from a soft rubber.
3. The pickup roller of claim 1, wherein the low friction surface is made from a hard plastic to provide a smooth surface.
- 15 4. The pickup roller of claim 1, wherein the low friction surface has at least one feed wheel.
5. The pickup roller of claim 4, wherein the feed wheel is made from a hard plastic to provide a smooth surface.
6. A pick mechanism located on one side of a paper tray, comprising:
20 a transmission gear connecting to a power input shaft;

an idling gear engaged with the transmission gear having an axis coupled with the power input shaft through a first linkage bar;

a pickup gear engaged with the idling gear having an axis coupled with the axis of the idling gear through a second linkage bar; and

a pickup roller located on one side of the pickup gear coupling on a pivot shaft with the pickup gear in a coaxial manner;

wherein the transmission gear is driven by the power input shaft to transfer driving power through the idling gear and the pickup gear, the pickup roller rotating
5 in the direction of paper feeding to move a top sheet of paper in the paper tray.

7. The pick mechanism of claim 6 further comprising a U-shaped outer frame fastened to an inner side of the paper tray, the gears and the pickup roller being located on an inner side of the outer frame.
8. The pick mechanism of claim 7, wherein the outer frame is fastened to the inner side
10 of the paper tray through a linkage block.
9. The pick mechanism of claim 7, wherein the outer frame has at least one retaining slot run through by the pivot shaft.
10. The pick mechanism of claim 7, wherein the outer frame is run through by the power input shaft.
- 15 11. The pick mechanism of claim 6, wherein the paper tray has one side forming a slot run through by the pivot shaft.
12. The pick mechanism of claim 6, wherein the pickup roller has a roller surface which includes a high friction surface and a low friction surface.
13. The pick mechanism of claim 12, wherein the high friction surface is made from a
20 soft rubber.
14. The pick mechanism of claim 12, wherein the low friction surface is made from a hard plastic to provide a smooth surface.
15. The pick mechanism of claim 12, wherein the low friction surface has at least one feed wheel.

- 16.The pick mechanism of claim 15, wherein the feed wheel is made from a hard plastic to provide a smooth surface.
- 17.The pick mechanism of claim 12, wherein the power input shaft provides rotational power in one direction.
- 5 18.The pick mechanism of claim 6, wherein the pickup roller has a roller surface made from a soft rubber.
- 19.The pick mechanism of claim 6, wherein the power input shaft provides rotational power in dual directions.
- 20.The pick mechanism of claim 6, wherein the first linkage bar and the second linkage
10 bar are formed in a plate shape.